

Claims

What is claimed is:

1. A device for remote-site collection and drying of a liquid biological sample obtained from an individual for the purpose of mailing the dried sample for recovery and laboratory analysis of an analyte contained in the biological sample, said device comprising:

a relatively rigid strip forming a handle member having a handle end and a collection end, said collection end having a collection pad for collecting and drying the sample containing the analyte, said collection pad capable of having at least a portion thereof removed from the device to recover the analyte for detection or measurement by laboratory analysis.

2. The device of claim 1 wherein the biological sample is urine.
3. The device of claim 1 wherein the analyte is albumin.
4. The device of claim 1 wherein the collection pad is an absorbent material.

5. The device of claim 4 wherein the collection pad material is selected from hydrogel, glass fiber, glass fiber/cellulose mixtures, or cellulose.

6. The device of claim 5 wherein the hydrogel is polyvinyl alcohol.

7. The device of claim 1 wherein the strip has an aperture formed in the collection end which exposes a portion of a face of the collection pad contacting the strip.

8. The device of claim 1 wherein the collection pad is pre-treated with a reagent which facilitates the collection, separation, storage, transport, preservation, recovery, or analysis of the sample.

9. The device of claim 8 wherein the collection pad pre-treatment reagent is a solution comprising bovine serum albumin.

10. The device of claim 1 wherein the collection pad is substantially non-reactive for purposes of providing a rapid, on-site diagnostic test.

11. The device of claim 1 wherein said device comprises a plurality of collection pads.

12. The device of claim 1 wherein said device comprises a plurality of apertures formed in the collection end of the strip.

13. A method for remote-site collection of a biological sample and laboratory analysis of an analyte in the sample, said method comprising:
providing a collection device to an individual or a health care professional, said device comprising a relatively rigid strip forming a handle member having a handle end and a collection end, said collection end having a collection pad for collecting and drying the sample containing the analyte, said collection pad capable of having at least a portion thereof removed from the device to recover the analyte for detection or measurement by laboratory analysis;
applying the biological sample in liquid form to the device so that the analyte-containing component of interest is collected onto the collection pad;

drying said collection pad having the analyte-containing component of interest retained therein;

transporting the device to a facility for analysis of the analyte;

removing at least a portion of the collection pad from the device;

eluting the analyte from the collection pad;

determining presence, absence, or concentration of the analyte; and

reporting results of the analysis to the individual or health care professional.

14. The method of claim 13 wherein the drying step is completed before the step of removing at least a portion of the collection pad.

15. The method of claim 13 further comprising identifying the individual and sample by a code.

16. The method of claim 13 wherein the elution step is modified according to the particular analyte being determined or measured.

17. The method of claim 13 wherein the step of determining presence, absence, or measuring of the analyte is modified according to said analyte.

18. The method of claim 13 wherein the collection pad is substantially non-reactive for purposes of providing a rapid, on-site diagnostic test.

19. A kit for remote-site collecting of a biological sample from a patient for laboratory analysis of said sample, said kit comprising:

a sample collection device comprising a relatively rigid strip forming a handle member having a handle end and a collection end, said collection end having

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a collection pad for collecting and drying the sample containing the analyte, said collection pad capable of having at least a portion thereof removed from the device to recover the analyte for detection or measurement by laboratory analysis; and an information card for providing information about the patient.

5 20. The kit of claim 19 wherein said kit further comprises a component selected from a urine collection cup, and packaging means for transporting the collected sample.
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